

BATHTUB SCRUBBING BRUSH

CROSS-REFERENCE TO RELATED APPLICATIONS

NONE

**STATEMENT REGARDING FEDERALLY
SPONSORED RESEARCH OR DEVELOPMENT**

Research and development of this invention and Application have not been federally sponsored, and no rights are given under any Federal program.

REFERENCE TO A MICROFICHE APPENDIX

NOT APPLICABLE

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

This invention relates to scrubbing brushes, in general, and to one for the cleaning of all surfaces of a bathtub whether horizontal, vertical or slanted, in particular.

DESCRIPTION OF THE RELATED ART

As will be readily appreciated, one of the household chores most avoided is the cleaning of one's bathroom. Regardless of whether the bathroom is located in a house, an apartment, or in a dormitory complex, usually it is the last spot to be cleaned. Whether that follows simply from the type of activity which takes place there, or whether it is because the least amount of the day is spent there (as contrasted with a living room, kitchen or bedroom), the fact remains that the process of cleaning the bathroom is frequently put off until its state of

being cannot be tolerated any longer.

While handled brushes are available for cleaning a toilet bowl, and brushes are available for cleaning the walls of a stall shower and the walls enclosing around a bathtub, nothing is generally available to assist in the cleaning of the various surfaces of a bathtub. In practice, this activity then follows by getting down on one's hands and knees to scrub both the tub's inside surfaces and its top edges as well. As will be readily understood, not only is this relatively unpleasant, but something which is quite difficult to do by those who may be physically impaired, or to those who just find it uncomfortable or hard to get down on all fours to do the task, and then to have to stand up again once it is completed.

OBJECTS OF THE INVENTION

It is an object of the present invention, therefore, to provide a bathtub scrubbing brush which can be operated from a standing position.

It is an object of the invention, also, to provide such a bathtub scrubbing brush which can be oriented to cleanse both the horizontal and vertical surfaces of the tub, and any of its slanted surfaces.

It is another object of the invention to provide such a bathtub scrubbing brush with a handle whose length can be adjusted to accommodate the height of the user and the various dimensions which the tub might take.

It is a further object of the invention to provide this

type of scrubbing brush which can be automatically operated, so as to fit the needs of those who are physically impaired or otherwise find difficult the forward-and-back, up-and-down, movements required to clean the bathtub surfaces of their detritus.

SUMMARY OF THE INVENTION

As will become clear from the following description, the bathtub scrubbing brush of the invention includes a telescopic handle of adjustable length having a hand-contoured grip at one end and a swivel at an opposite end. A bristled brush is detachably coupled to the swivel and rotates with respect to it under control of a motor within the handle for imparting at least one of a clockwise and counter-clockwise rotation to the brush. As will be seen, an electric battery pack is included within the handle to manually energize the motor to its operational mode when desired.

In a preferred embodiment, the battery pack is rechargeable from an electric utility line connection -- and the swivel is fixedly adjustable in position to angularly orient a plane of rotation of the brush with respect to the length of the handle, whether the rotation of the brush be clockwise or counter-clockwise. In this embodiment, the bristle brush may include a rubberized guard facing the swivel, and from which a plurality of fine, non-ceramic scratching bristles extend in the opposite direction. Having the telescopic handle of plastic composition, and of tubular length, the resulting bathtub scrubbing brush can

be made extremely lightweight and therefore easily moveable. In the preferred embodiment, an appropriate switch configuration can be employed to rotate the bristle brush when scrubbing, either in a clockwise direction, in a counterclockwise direction, or in both -- albeit, not simultaneously.

As with the typical toilet bowl cleaning brush, a "vertical stand" may be had, of dimension to accept the brush and telescopic handle for seating within the stand when maintained in its non-operating state.

BRIEF DESCRIPTION OF THE DRAWINGS

These and other features of the present invention will be more clearly understood from a consideration of the following description, taken in connection with the accompanying drawings, in which:

FIGURE 1 is a pictorial view of a bathtub scrubbing brush according to the invention; and

FIGURE 2 is a pictorial view of a "vertical stand" for receiving the scrubbing brush in seated position between uses.

DETAILED DESCRIPTION OF THE INVENTION

Referring to FIGURES 1 and 2, the bathtub scrubbing brush 10 when not in use can be seated within the hollow 12 of a vertical stand 14 for collecting any drippage at its bottom 15, in protecting a floor. The scrubbing brush 10 includes a telescopic handle 16 illustratively shown in three sections 16A, 16B, 16C, of adjustable length through the release of compressible pins 18 in any one of a plurality of apertures 20

on the sections in well-known manner. A hand contoured grip 22 is shown at a first end 24 of the handle 16, while a swivel 26 is coupled at the opposite end 28. A bristle brush 30 is detachably coupled in any appropriate manner to the swivel 26 so as to be rotatable with respect thereto. A motor 32 of appropriate construction is coupled within the handle 16 for imparting at least one of a clockwise and counter-clockwise rotation to the brush 30 once energized -- and to such end, an electrical battery pack 34 is also included within the handle to manually energize the motor 32 into operation. With the battery pack inserted, for example, in or adjacent to the hand contoured grip 22, an appropriate switch can be installed (as at 38) for actuating the motor to rotate the brush 30 in either of a clockwise or counter-clockwise direction, or in both. With the battery pack 34 being rechargeable from a conventional electrical utility line connection, then, operating the switch 38 starts the bristle brush 30 rotating.

As will well be recognized, a bathtub to be cleaned typically comprises vertical sides, horizontal bottom and top surfaces, and front and rear downwardly sloping angled surfaces. For cleansing any of them, the swivel 26 to which the bristle brush 30 couples is fixedly adjustable in position (as at 50) to angularly orient the plane of rotation of the brush so as to allow scrubbing of these surfaces most efficiently -- orienting the plane of rotation with respect to the length of the handle 16 either horizontally, vertically, or at one or more of a

series of angles in-between. Where the bathtub is of a ceramic surface composition, the bristles 40 of the brush 30 could be selected of a fabrication and fineness so as not to scratch the surfaces of the bathtub being cleaned -- whereas, for older tub manufactures of metal, for example, a coarser degree of bristles could be employed. Detaching the brush 30 from the swivel 26 allows for this interchange of "abrasiveness" as well as for replacement of the brush once its bristles 40 are ground down over time.

As will be understood, by having the handle 16 adjustable in length, by angularly controlling the plane of rotation of the bristled brush 30, and by allowing replacement of the bristles when ground down, a scrubbing brush of this nature becomes available for use in cleaning the grime from the tub's surfaces and the rings of detritus which characterizes the process of bathing. As will equally be understood, the scrubbing brush of the invention continues to permit its use in cleaning the walls which surround the tub -- and, in a manner which does not require any getting down on one's hands and knees to complete the scrubbing, as one can stand erect when using the brush, and wherein the scrubbing is effected by the motor provided with its electric battery control. Because the battery is rechargeable, continued operation can be had over extensive periods of time -- especially with the brush being of a design having a rubberized guard 45 facing the swivel 26 on one end, with the bristles 40 extending opposite thereto. Such bristles and guard are as

particularly shown in FIGURE 1.

While there have been described what are considered to be preferred embodiments of the present invention, it will be readily appreciated by those skilled in the art that
5 modifications can be made without departing from the scope of the teachings herein. For at least such reason, therefore, resort should be had to the claims appended hereto for a true understanding of the scope of the invention.